

## TROPICAL STORM LUKE (25W)

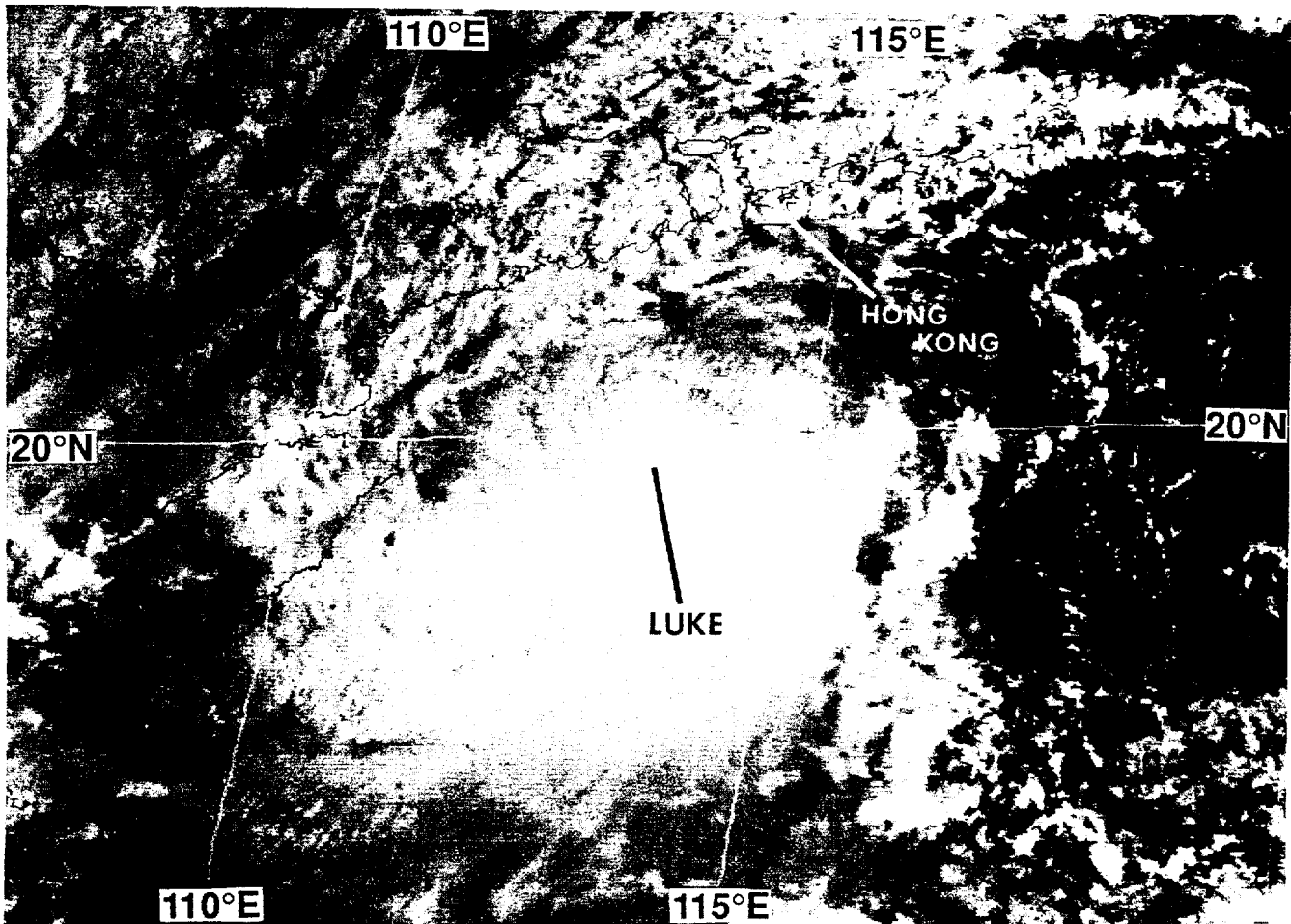


Figure 3-25-1 Tropical Storm Luke at 45 kt (23 m/sec) intensity and still intensifying while southwest of Hong Kong and east of Hainan Island (112331Z September visible GMS imagery).

While Tropical Storm Kinna (24W) was moving north along 140°E longitude, a monsoon depression covered an area from the Philippines to Yap [see Figure 3-24-2 in Kinna's (24W) summary]. This monsoon depression became Luke. When a large area of persistent deep convection to the west of the exposed low-level circulation center of this monsoon depression began to acquire cyclonic curvature, it was first mentioned on the 061800Z September Significant Tropical Weather Advisory. The disturbance moved slowly westward, and a Tropical Cyclone Formation Alert (TCFA) was issued at 071130Z. Intensification was slow. A second TCFA was issued 24 hours after the first. When the convection began to consolidate around a compact center, the first warning was issued on Tropical Depression 25W at 090600Z. For the next two days, the depression moved to the northwest at 10 kt (19 km/hr), passing just offshore of the northeastern tip of Luzon. On the afternoon of 11 September, the system was upgraded to Tropical Storm Luke, and turned to the west. On the morning of 12 September, Luke passed about 140 nm (260 km) south of Hong Kong. A peak gust of 94 km/hr (51 kt ; 26 m/sec) was recorded at Waglan Island (WMO 45009), Hong Kong, at 111422Z. Ten hours later, Luke reached

its 50 kt (26 m/sec) peak intensity 75 nm (140 km) east of Hainan Island (Figure 3-25-1). Hainan Island's rugged terrain, with mountains to 6,000 ft (1830 m), weakened the storm. Continuing westward, Luke went ashore in Vietnam as a tropical depression. The final warning was issued at 140000Z.